

PRAXAIR, INC.
PUBLIC HEARING
July 22, 2015

LIST OF EXHIBITS

- | | |
|-----------|---|
| Exhibit 1 | Application for a Coastal Zone Act Permit, dated and received on May 8, 2015 |
| Exhibit 2 | Affidavit of Publication announcing the receipt and availability of the Coastal Zone Act Permit application, News Journal, dated May 13, 2015 |
| Exhibit 3 | Affidavit of Publication announcing the receipt and availability of the Coastal Zone Act Permit application, New Castle Weekly, dated May 13, 2015 |
| Exhibit 4 | Letter from John Deemer, Delaware City Refining Company, to Kevin Coyle, DNREC, dated May 26, 2015, regarding Praxair's Application for Coastal Zone Permit at the Delaware City Refinery |
| Exhibit 5 | E-mail with attachment from Rick Beringer, Duffield Associates, to Kevin Coyle, DNREC, dated June 8, 2015 regarding Zoning Certification |
| Exhibit 6 | Secretary's Environmental Assessment Report, dated June 2015, and signed on June 11, 2015 |
| Exhibit 7 | Affidavit of Publication announcing the public hearing and the availability of the Coastal Zone Act Permit application, News Journal, dated July 1, 2015 |
| Exhibit 8 | Affidavit of Publication announcing the public hearing and the availability of the Coastal Zone Act Permit application, New Castle Weekly, dated July 1, 2015 |



The News Journal
Media Group

A GANNETT COMPANY

Street Address:
950 West Basin Road
New Castle, DE 19720

(302) 324-2500
(800) 235-9100

Mailing Address:
P.O. Box 15505
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Legal Desk:
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302 324-2249

SD COASTAL ZONE IND BRD
89 KINGS HWY

DOVER, DE 19901

DNREC COASTAL ZONE
ATTN: KEVIN COYLE
89 KINGS HWY
DOVERDE, 19901

AFFIDAVIT OF PUBLICATION

State of Delaware
New Castle County

Personally appeared **The News Journal**

Of the **The News Journal Media Group**, a newspaper printed, published and circulated in the State of Delaware, who being duly sworn, depose and saith that the advertisement of which the annexed is a true copy, has been published in the said newspaper 1 times, once in each issue as follows:

05/13/15 A.D 2015

Sherry Ann Salvia
Sworn and subscribed before me, this 13 day of May,
2015

Linda Barber

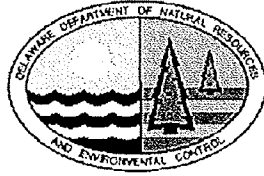
Ad Number: 0000452326



Legal notification printed at larger size for affidavit.

Ad Number: 0000452326

Run Dates: 05/13/15



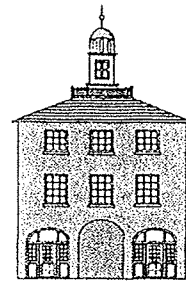
LEGAL NOTICE
DNREC, Office of the Secretary
May 13, 2015

Coastal Zone Act Permit Application
Re: Praxair, Inc.

The Department of Natural Resources and Environmental Control (DNREC) has received an application for a Coastal Zone Act Permit from Praxair, Inc. ("Praxair"). Praxair is seeking a permit to construct and operate a carbon dioxide purification and liquefaction unit and a nitrogen separation unit at the Delaware City Refinery, 4550 Wrangle Hill Road, Delaware City. The carbon dioxide (CO₂) unit will generate beverage-grade liquid carbon dioxide for use outside the Refinery; the nitrogen unit will be used to separate nitrogen from ambient air for use at the Refinery. The CO₂ plant will be replacing an existing CO₂ plant that has been operational for years and which will be ceasing operations once the new Praxair facility is operational. The nitrogen facility will be a new use within the refinery's footprint, but has no air, water or waste emissions. Emissions from the new Praxair CO₂ facility will be less than those from the current facility, and which reduction will serve as the required offset.

The application is presently available for inspection at <http://www.dnrec.delaware.gov/Admin/CZA/Pages/default.aspx>.

If and when this application is deemed to be preliminarily, administratively complete and ready for a public hearing, there will be a second legal notice announcing the hearing arrangements.
5/13-NJ



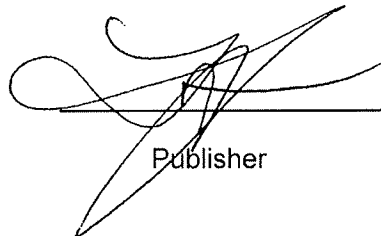
New Castle Weekly

203 Delaware Street, New Castle, DE 19720-4815
302-328-6005

AFFIDAVIT OF PUBLICATION

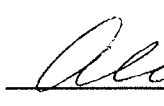
STATE OF DELAWARE
COUNTY OF NEW CASTLE

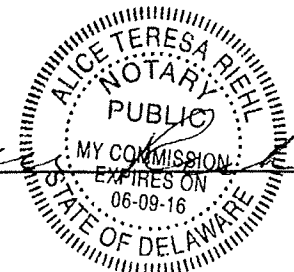
Personally appeared before me this 13th day of May, 2015, Theresa Gormley of the **New Castle Weekly**, a weekly newspaper published in the City of New Castle, County of New Castle, State of Delaware, who being duly sworn, states that the attached Legal Notice Praxair was published in the **New Castle Weekly** on 5/13/2015.



Publisher

Sworn to me this 13th day of May, 2015





LEGAL NOTICE
DNREC, Office of the Secretary
May 13, 2015

Coastal Zone Act Permit Application
Re: Praxair, Inc.

The Department of Natural Resources and Environmental Control (DNREC) has received an application for a Coastal Zone Act Permit from Praxair, Inc. ("Praxair"). Praxair is seeking a permit to construct and operate a carbon dioxide purification and liquefaction unit and a nitrogen separation unit at the Delaware City Refinery, 4550 Wrangle Hill Road, Delaware City. The carbon dioxide (CO₂) unit will generate beverage-grade liquid carbon dioxide for use outside the Refinery; the nitrogen unit will be used to separate nitrogen from ambient air for use at the Refinery. The CO₂ plant will be replacing an existing CO₂ plant that has been operational for years and which will be ceasing operations once the new Praxair facility is operational. The nitrogen facility will be a new use within the refinery's footprint, but has no air, water or waste emissions. Emissions from the new Praxair CO₂ facility will be less than those from the current facility, and which reduction will serve as the required offset.

The application is presently available for inspection at <http://www.dnrec.delaware.gov/Admin/CZA/Pages/default.aspx>.

If and when this application is deemed to be preliminarily, administratively complete and ready for a public hearing, there will be a second legal notice announcing the hearing arrangements.



CMRRR# 7013 2630 0001 5934 2077

May 26, 2015

Mr. Kevin Coyle
Principal Planner
Delaware Department of Natural Resources and
Environmental Control
89 Kings Highway
Dover, DE 19901

RE: Praxair's Application for Coastal Zone Permit
at the Delaware City Refinery (Submitted May 2015).

Dear Mr. Coyle

The intent of this letter is to verify to the Delaware Department of Natural Resources and Environmental Control that the following statement regarding the referenced Coastal Zone Permit is correct.

The operator of the existing carbon dioxide unit adjacent to the Delaware City Refinery has a contract with the Refinery which is set to expire in 2016. Praxair has entered into a contract with the Refinery to receive this feedstock gas when the new Praxair CO₂ Unit has been constructed and after the termination of the current contract. Once the Praxair CO₂ Unit starts to receive and pay for this byproduct gas stream in accordance with the Praxair contract, and after a brief transition period to ensure reliable operations, the operator of the existing carbon dioxide unit will terminate its contract (or the contract will expire) and the existing carbon dioxide unit will cease operations.

If you have any questions or concerns, feel free to contact me at 303-836-6812.

Sincerely,

A handwritten signature in black ink, appearing to read "John J. Deemer", is written over a horizontal line.

John J. Deemer
Manager – Health, Safety, and Environmental



cc: Praxair - Rob Hueber
Praxair – Dave Copeland
Bob Baldwin, DCRC
Tim Parker, PBF Energy
Tom Godlewski, DCRC

Coyle, Kevin F. (DNREC)

From: Rick Beringer <rberinger@duffnet.com>
Sent: Monday, June 08, 2015 5:21 PM
To: Coyle, Kevin F. (DNREC)
Cc: Dave_Copeland@Praxair.com; Carrie DeSimone; Jeff Bross
Subject: Zoning Certification for the Praxair CZA
Attachments: Praxair Zoning Certification.pdf

Kevin,

Please find the attached Zoning Certification for the proposed carbon dioxide and nitrogen plants that Praxair would like to construct at the Delaware City Refinery. To our knowledge, the zoning certification was the last supporting document need to complete the Coastal Zone Application for the project. Please call me at telephone number (302) 239-6634, if you have questions.

Rick

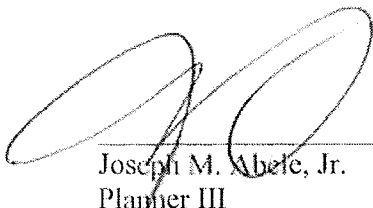
Please consider the environment before printing this E-Mail

Zoning Certification

I, Joseph M. Abele, on behalf of New Castle County Department of Land Use, certify that tax parcel number 12-008.00-014, 765 School House Road, New Castle DE, the "Property," is located in the HI (Heavy Industrial) Zoning District. Applicant, Delaware City Refining Company, LLC proposes to "construct an industrial plant that will extract nitrogen gas from the atmosphere and supply it to the Delaware City refinery for making the atmospheres inside refinery tanks and processes inert. The project also includes the construction of an industrial plant that will extract carbon dioxide gas from a refinery process gas stream." This type of use is categorized as Heavy Industrial and is allowable in the HI Zoning District pursuant to Chapter 40 of the *New Castle County Code* also known as the Unified Development Code.

This certification shall not be construed as approval of the proposed use by New Castle County. Approval may only be granted after review of a land development application, if applicable, for compliance with the provisions of the Unified Development Code.

The Property is located in the Delaware Coastal Zone, and state law contains additional restrictions on uses allowable therein. This certification does not certify that the proposed use is compliance with the Delaware Coastal Zone Act ("Act"), 7 *Del. C.* 7001 *et seq.* or the regulations and administrative codes adopted pursuant to the Act. Furthermore, this zoning certification does not supercede any applicable state or federal law.



Joseph M. Abele, Jr.
Planner III
New Castle County Department of Land Use

Dated: June 8, 2015

**SECRETARY'S ENVIRONMENTAL ASSESSMENT REPORT
FOR A COASTAL ZONE ACT PERMIT APPLICATION**

Re: Praxair, Inc.

June 2015

Introduction

As required by the "Regulations Governing Delaware's Coastal Zone" (Section 8.3.4) dated May 11, 1999, and amended October 1, 2001, the Secretary is required to make an environmental assessment of the impact(s) of the project on the Coastal Zone of Delaware. This is done by evaluating the project's likely impact on the statutory and regulatory criteria and making a preliminary determination of the sufficiency of the Offset Proposal. The following is such an environmental assessment of the proposed project described in an application for a Coastal Zone Act (CZA) Permit, received from Praxair, Inc. ("Praxair").

The fact that DNREC considers an application to be preliminarily, administratively complete does not constitute the Department's position as to whether the application should be approved or denied. That decision will not be made until after the public hearing. The purpose of the Secretary's written assessment is to assist the applicant and the public to focus on issues presented in the application. It constitutes an administrative determination that the application is sufficient to proceed to a public hearing. In addition, should the Department eventually issue the CZA Permit, it does not automatically guarantee the applicant will receive other required permits.

The Proposed Project

Carbon Dioxide and Nitrogen Units will be installed within the Delaware City Refinery ("Refinery"). The Praxair Carbon Dioxide Purification and Liquefaction Unit (CO₂ Unit) will process a CO₂-rich byproduct gas feed (approximately 43,100 pounds per hour) containing mostly CO₂ (>85%) and water (~5 to 15%) from the Refinery. The CO₂ will be purified and liquefied to generate beverage-grade liquid carbon dioxide for use outside of the Refinery. The CO₂ Unit is replacing an existing similar unit currently operated by Air Liquide. The Nitrogen Unit will separate nitrogen gas from approximately 28,000 pounds per hour ambient air utilizing a standard cryogenic distillation process. Nitrogen is currently shipped to the refinery in cryogenic trailers and is stored on site. Nitrogen is used to generate inert atmospheres within tanks, process vessels and other confined spaces as a safety measure and to minimize the emissions of volatile compounds during refining processes. The proposed nitrogen unit will replace the need for shipments of nitrogen to the refinery.

Environmental Assessment

Anticipated air emissions from Praxair's CO₂ Unit are compared to the permitted air emissions for the existing Air Liquide CO₂ unit in the following table:

	Byproduct Gas Ton/yr. In	Existing Air Liquide CO ₂ Unit permit, ton/yr.	Praxair Ton/yr.	Amount Decrease, ton/yr.
Raw Gas	---	192,194	179,398	12,796
Hydrogen	95.60	530.81	95.60	435
Carbon Monoxide	20.08	107.35	20.08	87
Non-VOC*	76.48	87.82	76.48	11
HAPs**	4.95	4.52	2.48	2
VOC***	5.23	6.79	2.63	4
Hydrogen sulfide	0.24	0.079	0.00	0.079

* Non VOC – mostly methane and ethane

** Hazardous Air Pollutants – mostly methanol with trace benzene, toluene and ethyl benzene

*** VOC mostly methanol/ethanol with trace benzene, toluene and ethyl benzene

The CO₂ Unit will require a water source of approximately 55 gallons per minute (gpm), which will be provided by United Water Delaware. United Water Delaware obtains water from Red Clay Creek, White Clay Creek, or Christina River at locations outside of Delaware's Coastal Zone. The CO₂ Unit will generate a peak wastewater flow of approximately 24 gpm that will be sent to the Refinery's existing wastewater treatment system. The power consumption of the CO₂ Unit will average approximately 2.69 megawatts per hour, which will be supplied by Delmarva Power's distribution system. The CO₂ Unit will use two activated carbon filters. The dryers include a primary and a secondary dryer bed; the primary dryer bed uses an aluminum oxide absorbent and the secondary dryer bed uses a zeolite absorbent. Spent activated carbon media and spent absorbents will be transported to a permitted landfill. No other environmental impacts are anticipated.

With respect to air emissions, the Nitrogen Unit will utilize a standard cryogenic distillation process. This process is considered to have *de minimis* environmental impacts as supported by Title 7, Delaware Administrative Code, Natural Resources and Environmental Control, 1100 Air Quality Management Section, 1102 Permits, which exempts equipment used to liquefy or separate oxygen, nitrogen or the rare gases from air permitting requirements. Discharges from the Nitrogen Unit to the environment are limited to denitrified and dehumidified air, and

condensate derived from the dehumidification process. Condensate generation from the Nitrogen Unit is anticipated to average approximately 53 lbs./hr. (442 gallons per hour), but is directly dependent on the moisture content of the air at the time of processing. Condensate will be discharged to the Refinery's wastewater treatment plant. The power consumption of the Nitrogen Unit will average approximately 1.104 megawatts per hour, which will be supplied by Delmarva Power's distribution system. No other environmental impacts are anticipated.

During project construction, there will be a peak of 50 and an average of 30 workers; the majority will be local. Post-construction, there will be 4 full-time plant operators (one superintendent and three technicians) and 6-8 truck drivers hired for daily operations.

Both the CO₂ and Nitrogen Units will be constructed within the footprint of the Refinery, an existing grandfathered non-conforming use, as shown in the application.

There will be no new supporting facilities and services required to support the proposed project.

Effects on neighboring uses will be minimal.

The proposed facility and operation is consistent with the New Castle County Comprehensive Development Plan.

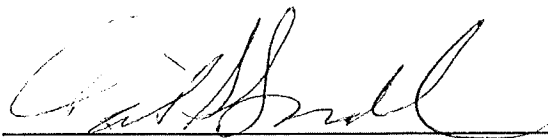
Offset Proposal

The offset for the Carbon Dioxide Purification and Liquefaction Unit is the replacement of the existing Air Liquide CO₂ Unit with Praxair's Unit, which has a demonstrable decrease in air emissions. The proposed Nitrogen Unit has no direct emissions and requires no offset.

Sufficiency Statement and Conclusion

By replacing the existing Air Liquide CO₂ Unit with newer, more efficient equipment, and by producing Nitrogen from ambient air on-site, thereby reducing shipments of nitrogen to the refinery by an average of 100 trucks per month, Praxair's proposed project will benefit the Coastal Zone. This application for a CZA Permit, including supplemental information, has been reviewed by the Department to determine its completeness. After a thorough review of the company's application and file, the Department considers this application to be administratively complete and sufficient for proceeding to public hearing.

Approved:



David S. Small
Secretary

Date:

June 11, 2015



The News Journal
Media Group

A GANNETT COMPANY

Street Address:
950 West Basin Road
New Castle, DE 19720

(302) 324-2500
(800) 235-9100

Mailing Address:
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Wilmington, DE 19850

Legal Desk:
(302) 324-2676
Legal Fax:
302 324-2249

SD COASTAL ZONE IND BRD
89 KINGS HWY

DOVER, DE 19901

DNREC COASTAL ZONE
ATTN: KEVIN COYLE
89 KINGS HWY
DOVERDE, 19901

AFFIDAVIT OF PUBLICATION

State of Delaware

New Castle County

Personally appeared **The News Journal**

Of the **The News Journal Media Group**, a newspaper printed, published and circulated in the State of Delaware, who being duly sworn, depose and saith that the advertisement of which the annexed is a true copy, has been published in the said newspaper 1 times, once in each issue as follows:

07/01/15 A.D 2015

Linda Barber

Notary Public of Delaware



Sworn and subscribed before me, this 1 day of July, 2015

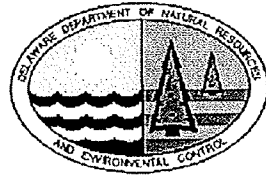
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Ad Number: 0000558045

Run Dates: 07/01/15



LEGAL NOTICE
DNREC, Office of the Secretary
July 1, 2015

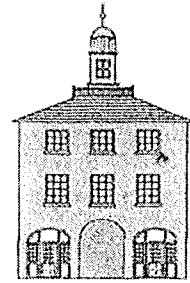
Coastal Zone Act Public Hearing

Re: Praxair, Inc.

In accordance with the Delaware Coastal Zone Act (7 Del. Code, Ch. 70) and the "Regulations Governing Delaware's Coastal Zone," this notice serves to announce that the Department of Natural Resources and Environmental Control (DNREC) will conduct a public hearing on the Application for a Coastal Zone Act Permit received from Praxair, Inc. ("Praxair"). The applicant is seeking a Coastal Zone permit to construct and operate a carbon dioxide purification and liquefaction unit and a nitrogen separation unit at the Delaware City Refinery, 4550 Wrangle Hill Road, Delaware City.

The application, which can be reviewed at <http://www.dnrec.delaware.gov/Admin/CZA/Pages/default.aspx>, is considered to be preliminarily, administratively complete and sufficient to proceed to public hearing. The public hearing will be held on Wednesday, July 22, 2015 at the DNREC office building at 391 Lukens Drive, New Castle, beginning at 6:00pm. Interested persons may contact Kevin Coyle at (302) 739-9071 for more information.

7/1-NJ




New Castle Weekly

203 Delaware Street, New Castle, DE 19720-4815
302-328-6005

AFFIDAVIT OF PUBLICATION

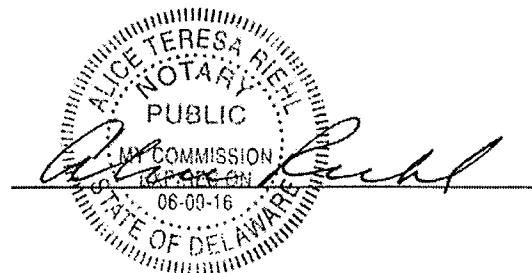
STATE OF DELAWARE
COUNTY OF NEW CASTLE

Personally appeared before me this 1st day of July, 2015, Theresa Gormley of the **New Castle Weekly**, a weekly newspaper published in the City of New Castle, County of New Castle, State of Delaware, who being duly sworn, states that the attached Notice Coastal Zone Act Public Hearing re Praxair, Inc., was published in the **New Castle Weekly** on 7/1/2015.



Publisher

Sworn to me this 1st day of July, 2015



LEGAL NOTICE
DNREC, Office of the Secretary
July 1, 2015

Coastal Zone Act Public Hearing

Re: Praxair, Inc.

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